

Minutes
Control Protocols Working Group
27 January 2021
via WebEx

Presiding working group leader: Milton Davis; Doug Fleenor Design

Recording secretaries: Richard Nix & Karl G. Ruling; ESTA

Members attending:

Bill Ellis; Candela Controls, Inc.; P; DR
Bill McIntyre; Show Distribution Group, Inc.; P; CP
Chris Kennedy; Chauvet Lighting; O; MP
Christian Allabauer; Christian Allabauer; O; G
Daniel Murfin; Royal National Theatre; P; U
Eric Bloom; Westview Productions; P; DR
Gary Douglas; Phospec Industries, Inc.; P; MP
Jason Potterf; Cisco; P; MP
Jeremy Powell; Vectorworks, Inc; O; CP
Jim Love; Tait Towers Manufacturing LLC; P; MP
John David (Javid) Butler; HDR Consulting LLC; P; DE
John Valus Jr.; Lex TM3; P; CP
Jonathan Kemble; Jonathan Kemble ; I; G
Kevin Matz; Company 235, LLC; O; U
Marcus Bengtsson; disguise; P; MP
Mark Primrose; Kino Flo, Inc.; P; MP
Matt Didon; ON LX Limited; P; CP
Matthew Ardine; I.A.T.S.E. Local 728; A; U
Maya Nigrosh; Sonos; P; MP
Michael Lay; Candela Controls, Inc; A; DR
Michael Lichter; Electronic Theatre Controls, Inc.; A; MP
Milton Davis; Doug Fleenor Design, Inc.; P; MP
Paul Beasley; Walt Disney Company; P; U
Paul K. Ericson; Stantec; O; DE
Paul Kleissler; City Theatrical; P; MP
Rene Berhorst; MA Lighting; P; MP
Richard Thompson; Electronic Theatre Controls, Inc; O; MP
Robert Barbagallo; Solotech Inc.; O; U
Robert Bell; Acuity Brands Inc.; A; MP
Robert Goddard; Goddard Design Co.; P; MP
Robert Haycock; UC Berkeley; O; U
Sam Kearney; Electronic Theatre Controls, Inc.; P; MP
Scott M. Blair; Megapixel; P; CP
Shawn Silverman; Lighting Infusion LLC; P; DE
Stijn Geysen; Luminex Lighting Control Equipment; P; MP
Tucker Downs; Tucker Downs; O; G
Ulrich Kunkel; E3 Engineering & Education for Entertainment GmbH; P; U
Vangelis Manolis; AtlaBase Ltd.; O; CP
Wayne David Howell; Artistic Licence Holdings; P; DE
Will Wagner; Carallon Ltd.; O; MP

1 Opening remarks

Milton Davis called the meeting to order at 11:04. He thanked everyone for attending. He reminded people to mute microphones when not speaking.

2 Anti-trust and patent statements

2.1 Reading of the anti-trust statement

Milton Davis read the following statement aloud to the assembly:

ESTA and its members take seriously their obligation to comply with all applicable antitrust laws. Therefore, during this meeting and during all ESTA events, all discussions will be limited to those subjects that are permitted by the antitrust laws. All members should refrain from any discussion or mention of competitively sensitive subjects such as the current or future prices charged for any member product or services, current or future marketing plans or strategies, and current or future costs, including employee salaries. There also must be no agreement on the suppliers or customers that members will or will not do business with or the markets in which members will conduct business.

Violations of the antitrust laws can have serious consequences. If you have any questions or concerns about anything that is discussed at an ESTA meeting, please bring your concern to ESTA management. An easy to read pamphlet describing the antitrust laws is available from the ESTA staff.

Karl Ruling displayed a copy of the pamphlet to his camera.

No restraint of trade concerns were raised.

2.2 Reading of the call for patents

Milton Davis read the following statement aloud to the assembly:

ESTA intends not to publish any standard that contains protected intellectual property, unless that information can be licensed by anyone for a reasonable fee. ESTA uses a process of open patent and copyright disclosures to implement its intent. ESTA does not conduct patent or copyright searches and does not warrant that its standards contain no protected intellectual property.

In keeping with the open disclosures policy, I ask if anyone present wishes to notify this working group of the existence of a patent, patent application, copyright, or other protected intellectual property that might protect material in a standard being developed by this working group. You need not be the holder of the patent or copyright to notify this working group of its existence.

Nothing was revealed.

3 Attendance and Membership

3.1 Requirements for membership

Milton Davis read the following statement aloud to the assembly:

Membership is open to all parties who are affected by the work of the group; membership in ESTA is not a requirement, but there is a \$100/person/year participation fee to help fund the costs of running the Technical Standards Program. Voting members are required to attend meetings and vote on letter ballots. Any principal member and alternate that both miss three consecutive meetings or that miss three consecutive letter ballots will have their membership status changed to observer. This action will be taken at the beginning of the first meeting after such inaction and will be recorded in the minutes of that meeting.

3.2 Introduction of attendees

The list of participants was reviewed, and people offered greetings when their names were called.

3.3 Determination of a quorum

Membership as of 7 January is 34 voters, which sets a quorum at 12, and the minimum number needed for a supermajority vote at 18.

Milton Davis declared that sufficient voting members were present for quorum and to pass a motion needing a supermajority vote.

3.4 Processing of new membership and status change requests

3.4.1 Changes to observer status

None.

3.4.2 New applications

The following applications had been received:

Ben Arrigo; no company listed, so himself; Observer; User

Michael Lichter; ETC; Alternate; Mass-market Producer

Jonathan Kemble; Jonathan Kemble; I; General interest

John David (Javid) Butler; HDR Consulting LLC; P; DE (change of company and interest category)

Kevin Matz; Company 235, LLC; Observer; User

Eric Johnson, Observer, General interest

Karl Ruling read the information from each application.

Scott Blair moved to accept the applications as submitted. The motion was seconded. The motion carried with no objections or abstentions.

3.5 Consensus body during the meeting:

Delegate	Representing	Voting status	Int. cat.
Kevin Loewen	Acuity Brands Inc.	P	MP
Robert Bell	Acuity Brands Inc.	A	MP
Maurits van der Hoorn	Acuity Brands Inc.	A	MP
Pete Borchetta	Altman Lighting	P	MP
Wayne David Howell	Artistic Licence Holdings	P	DE
Bill Ellis	Candela Controls, Inc.	P	DR
Brent Boulnois	Candela Controls, Inc.	A	DR
Jim Ohrberg	Candela Controls, Inc.	A	DR
Michael Lay	Candela Controls, Inc	A	DR
Jason Potterf	Cisco	P	MP
Paul Kleissler	City Theatrical, Inc.	P	MP
Marcus Bengtsson	disguise	P	MP
Milton Davis	Doug Fleenor Design, Inc.	P	MP
Ian Campbell	Doug Fleenor Design, Inc.	A	MP
Ulrich Kunkel	E3 Engineering & Education for Entertainment GmbH	P	U
Sam Kearney	Electronic Theatre Controls, Inc.	P	MP
Steve Terry	Electronic Theatre Controls, Inc.	A	MP
Michael Lichter	Electronic Theatre Controls, Inc.	A	MP
Robert Goddard	Goddard Design Co.	P	MP
John David (Javid) Butler	HDR Consulting LLC	P	DE
Peter Willis	Howard Eaton Lighting Ltd.	P	CP
Edwin S. Kramer	I.A.T.S.E. Local 1	P	U
John Huntington	I.A.T.S.E. Local 1	A	U

Delegate	Representing	Voting status	Int. cat.
Hans Lau	I.A.T.S.E. Local 728	P	U
Alan M. Rowe	I.A.T.S.E. Local 728	A	U
Matthew Ardine	I.A.T.S.E. Local 728	A	U
David Kane	I.A.T.S.E. Local 728	A	U
Jonathan Kemble	Jonathan Kemble	I	G
Mark Primrose	Kino Flo, Inc.	P	MP
Jim Bogdanowicz	Kino Flo, Inc.	A	MP
John Valus Jr.	Lex TM3	P	CP
Shawn Silverman	Lighting Infusion LLC	P	DE
Michael Karlsson	LumenRadio AB	P	MP
Stijn Geysen	Luminex Lighting Control Equipment	P	MP
Rene Berhorst	MA Lighting	P	MP
Leroy "Tripp" Oliver, III	Mainstage Theatrical Supply, Inc.	P	DR
Scott M. Blair	Megapixel	P	CP
Matt Didon	ON LX Limited	P	CP
Simon Newton	Open Lighting Project	P	G
Gary Douglas	Phospec Industries, Inc.	P	MP
Daniel Murfin	Royal National Theatre	P	U
Bill McIntyre	Show Distribution Group, Inc.	P	CP
Jon Hole	Signify	P	MP
Maya Nigrosh	Sonos	P	MP
Jim Love	Tait Towers Manufacturing LLC	P	MP
Julian Hoare	Tait Towers Manufacturing LLC	A	MP
Mitch Hefter	USITT	P	U
Paul Beasley	Walt Disney Company	P	U
Eric Bloom	Westview Productions	P	DR

Total votes possible	35	
Interest categories subtotals	5	CP
	3	DE
	3	DR
	2	G
	16	MP
	6	U

Voting Status key: P = Principal voter, A = Alternate voter, I = Individual voter
Interest Category key: MP = Mass-market producer, CP = Custom-market producer,
DR= Dealer or rental company, U = User, G = General interest, DE = Designer

4 Approval of the minutes from the last meeting

See *CPmin10-2020_DRAFT.pdf*

Javid Butler moved to approve the agenda as submitted. The motion was seconded. The motion was approved with no objections or abstentions.

5 Approval of agenda

Milton Davis added agenda item 8.5, a report about NAMM.

Javid Butler moved to approve the agenda as amended. The motion was seconded, and carried without objections or abstentions.

Note: Several agenda items scheduled for this meeting required much lengthier discussion times than anticipated. To maintain the scheduled meeting slot, several agenda items were skipped during this meeting, and have been marked "removed from the agenda due to lack of time" in these minutes. The next meeting will be scheduled for a longer time slot.

6 Old Business

6.1 Standards, Guides & Recommended Practice Maintenance

This is a placeholder in the agenda, so we don't forget to maintain them. Documents prefaced with an asterisk () are on the agenda elsewhere for reports or action.*

*ANSI E1.3 – 2001 (R2016), Entertainment Technology - Lighting Control Systems - 0 to 10V Analog Control Specification & Application Guide For ANSI E1.3 – 2004 Lighting Control Systems 0 to 10V Analog Control Specifications. (Revision, reaffirmation or withdrawal by 17 February 2021)

ANSI E1.11 – 2008 (R2018), Entertainment Technology - USITT DMX512-A, Asynchronous Serial Digital Data Transmission Standard for Controlling Lighting Equipment and Accessories. (Revision, reaffirmation, or withdrawal by 31 May 2023)

ANSI E1.17 – 2015 (R2020) Entertainment Technology - Architecture for Control Networks (ACN) (Revision, reaffirmation, or withdrawal by 23 March 2025)

*BSR E1.20 - 20xx, Remote Device Management over USITT DMX512. (In public review cycle)

*ANSI E1.27-1 – 2006 (R2016), Entertainment Technology - Standard for Portable Control Cables for Use with USITT DMX512/1990 and E1.11 (DMX512-A) Products. (Revision, reaffirmation or withdrawal by 8 April 2021)

ANSI E1.27-2 – 2009 (R2019), Entertainment Technology - Recommended Practice for Permanently Installed Control Cables for Use with ANSI E1.11 (DMX512-A) and USITT DMX512/1990 Products. (Revision, reaffirmation or withdrawal by 21 July 2024)

*ANSI E1.30-1 – 2010 (R2016), EPI 23, Device Identification Subdevice. (Revision, reaffirmation or withdrawal by 17 February 2021)

ANSI E1.30-3 – 2009 (R2019), EPI 25, Time Reference in ACN Systems Using SNTP and NTP. (Revision, reaffirmation or withdrawal by 21 July 2024)

*ANSI E1.30-4 – 2010 (R2015), EPI 26, Device Description Language (DDL) Extensions for DMX512 and E1.31 Devices. (Revision, reaffirmation, or withdrawal by 25 September 2020)

ANSI E1.30-10 – 2009 (R2019), EPI 32, Identification of Draft Device Description Language Modules. (Revision, reaffirmation or withdrawal by 21 July 2024)

ANSI E1.30-11 - 2019, EPI 33, Transport of root PDUs over TCP (Published on 25 June 2019. Revision, reaffirmation or withdrawal by 22 March 2024)

ANSI E1.31 - 2018, Lightweight streaming protocol for transport of DMX512 using ACN (Revision, reaffirmation, or withdrawal by 31 August 2023)

*ANSI E1.33 – 2019, Transport of ANSI E1.20 (RDM) in an E1.31 environment (Revision, reaffirmation or withdrawal by 28 May 2024)

ANSI E1.37-1 – 2012 (R2017), Additional Message Sets for ANSI E1.20, Remote Device Management. (Revision, reaffirmation, or withdrawal by 18 May 2022)

*ANSI E1.37-2 - 2015, Additional Message Sets for ANSI E1.20 (RDM) – Part 2, IPv4 & DNS Configuration Messages. (Revision, reaffirmation, or withdrawal by 25 September 2020)

*BSR E1.37-4 – 201x, Remote Device Management over DMX512 Networks – File Transfer Control with Firmware Upload capabilities.(currently in public review cycle)

*BSR E1.37-5 – 20xx, General Purpose Messages for ANSI E1.20 RDM (currently in public review cycle)

ANSI E1.37-7 - 2019, Additional Message Sets for ANSI E1.20 (RDM) - Gateway and Splitter Configuration (Published on 05 July 2019. Revision, reaffirmation or approval by 04 May 2024)

*BSR E1.59 – 20xx, Object Transform Protocol

*BSR E1.63 Network Advertisement of Entertainment Protocols

*BSR E1.68 Recommended Practice to address DMX512 compliance and interoperability

Application Guide for ANSI E1.3 - 2001, Lighting Control Systems 0 to 10V Analog Control Specification

Recommended Practice for Ethernet Cabling Systems in Entertainment Lighting Applications

Supplement to the Recommended Practice for Ethernet Cabling in Entertainment Lighting Applications

Withdrawn standards

E1.45 - 2013 (W2015), Unidirectional Transport of IEEE 802 data frames over ANSI E1.11 (DMX512A)

E1.30-7 - 2009 (W2016), EPI 29, Allocation of Internet Protocol Version 4 Addresses to ACN Hosts

6.2 BSR E1.20 – 201x, Remote Device Management over USITT DMX512

Wayne Howell/Scott Blair: progress report. Reflectors: e1.20@esta.org, rdmtg_standards@esta.org

See [BSR_E1-20_201x-6_016.pdf](#), [BSR_E1-20_201x-6_016_dif.pdf](#), and [BSR_E1-20_Draft_PR2_resolutions.xlsx](#).

See [BSR_E1-20_PR2_CmmntSmmry.pdf](#) for the commenters names and the identification of the draft standard that was offered for public review.

Wayne Howell reported that the draft comment resolutions and a revised draft standard were distributed to the working group for consideration. He asked if anyone had any concerns.

Maya Nigrosh said she thought the proposed resolutions were too casual, as though the responses were more like internal task group discussions rather than formal comment resolutions. In some cases there seemed to be no clear resolution; she cited two examples where the proposed response was simply “accept in principle” without clear guidance on what was actually changed.

Richard Nix said that the resolution document would not pass an ANSI audit, since it does not say what the

resolutions actually are.

There was lengthy discussion. The consensus was that this resolution document is not ready. Michael Lay directed the task group to decide how much work needs to be done to correct the issues identified, and when we can move forward with a better document.

6.3 ANSI E1.33 – 2019, Transport of ANSI E1.20 (RDM) in an E1.31 environment

Scott Blair/Sam Kearney: errata sheet progress report. Reflector: e133@esta.org

Scott Blair reported that he had circulated a proposed errata sheet in December to the task group. There have been no responses yet.

6.4 ANSI E1.37-2 - 2015, Additional Message Sets for ANSI E1.20 (RDM) – Part 2, IPv4 & DNS Configuration Messages, reaffirmation project

Reflector: e137@esta.org, a general E1.37-x reflector.

There are three related actions to be considered in respect to E1.37-2: agenda items 6.4.1, 6.4.2, and 6.4.3.

6.4.1 Resolutions of objections on letter ballot.

See CPWG_E1.37-2_BallotResults – CP_2020-1011r2.pdf. Also see E1.37-2 Errata.pdf. Correcting the errors in the existing standard would require substantive changes, which cannot be done as part of a reaffirmation, since reaffirmation means “no changes.” These are not typographical or clerical errors.

Scott Blair moved to resolve the letter ballot objections by stating that the objections are taken under consideration, but to reaffirm regardless, because the objections will be addressed in another document. The motion was seconded and carried with the required supermajority by show of virtual hands.

Maya Nigrosh had letter ballot objections, but voted in favor of the motion, noting that she will leave her objection on the record, while conceding to the voting body’s decision.

This attempt at resolution will be recirculated to the voters on a letter ballot to allow them a chance to change their votes or affirm them by either voting the same way again or simply not changing their votes.

6.4.2 Resolution of public review comments

E1-37-2_pub_revw_summary.pdf. The one commenter did not object, but he has things he thinks should be changed.

No action was taken at this meeting to respond to the public review comments. This remains as an agenda item that needs to be done before ANSI E1.37-2 can be reaffirmed.

6.4.3 Consideration of a new project.

See NewIPv4&IPv6_TSP_ProjectRequest.pdf

Scott Blair moved to accept the new project as submitted. The motion was seconded. The motion was approved unanimously with no objections and no abstentions.

6.5 BSR E1.37-4 – 201x, Remote Device Management over DMX512 Networks – File Transfer Control with Firmware Upload capabilities

The last public review ended 9 April 2018. Peter Willis is the task group leader. Comment resolution progress report. Reflector: e137@esta.org, a general E1.37-x reflector.

No action at this meeting. Removed from the agenda due to lack of time.

6.6 BSR E1.37-5 – 201x, General Purpose Messages for ANSI E1.20 RDM

Scott Blair/Simon Newton: comment resolutions progress report. See E1-37-5 General Purpose PIDs 2020-12-27.pdf and E1-37-5_CP_2020-1019 by Comment #.pdf. Reflector: e137@esta.org, a general E1.37-x reflector.

No action at this meeting. Removed from the agenda due to lack of time.

6.7 BSR E1.59 - 201x, Object Transform Protocol

Reflector: e159@esta.org

Progress report on ANSI acceptance by Karl Ruling.

It's accepted. It's ready to go as long as no one has an objection to any of the magic numbers in Appendix A.

Dan Murfin on assigning the magic numbers in Appendix A. See Appendix_A from E1-59 OTP 2020-12-09.pdf.

Dan Murfin reported that the values in the table are what he'd assigned. No one objected.

Karl Ruling said ANSI E1.59 - 2021 will be published later today or tomorrow at the latest.

6.8 BSR E1.63 Network Advertisement of Entertainment Protocols

Jason Potterf/Kevin Loewen: progress report. Reflector: NAEP@esta.org

No action at this meeting. Removed from the agenda due to lack of time.

6.9 BSR E1.68 Recommended Practice to address DMX512 compliance and interoperability

Javid Butler/Wayne Howell: progress report. Reflector: ProtocolsCompliance@esta.org. See BSRE1-68 DRAFT_2021 0110.pdf

Javid Butler thanked everyone who has been participating for their work, and asked for those willing to submit comments do so by 01 March 2021

6.10 Next Gen Study Group (Overall)

Jason Potterf/Maya Nigrosh: progress report. At the last meeting this was moved to precede all the other Next Gen reports.

No action at this meeting. Removed from the agenda due to lack of time.

6.11 Next Gen Transport study group

Jason Potterf/Maya Nigrosh: progress report. Reflector: NextGenTransport@esta.org

No action at this meeting. Removed from the agenda due to lack of time.

6.12 Next Gen Luminaire Libraries study group

Dan Murfin/Sam Kearney: progress report. Reflector: NextGenLibrary@esta.org

See letter from GDTF Group, GDTF-Group_Letter to ESTA_12-2020[3].pdf, and a response from the study group leaders, GDTF_CPWG_Library_Study_Group_Background_Information_For_TSC Response.pdf.

The consensus was that the background document provided by the study group leaders is a good statement of the issue investigated and the conclusions reached concerning GDTF and the proposed CPWG project.

Also see UDR_ProjectRequest_Signed.pdf, a project request to turn the Libraries Study into a project to write an American National Standard.

Sam Kearney moved to approve the project request. The motion was seconded. There was discussion. Jeremy Powell commented that it is important to distinguish between open competition and open standards. He views the GDTF and this UDR as being in competition. He asked that we consider the end-user's need more than manufacturers.

Wayne Howell said that the two documents can exist together in a the market. One (GDTF) is very channel-oriented and the other (UDR) is object-oriented. The two documents take different approaches.

The project request was approved with all voting in favor except for four abstentions: Bob Goddard, Rene Berhorst, Jim Love, and Jeremy Powell. The project request and any potential response letter to the GDTF group will move to the TSC for further action.

6.13 Protocol Security study group

Kevin Loewen/Paul Beasley: progress report. Reflector: CPWG_Secure@esta.org

No action at this meeting. Removed from the agenda due to lack of time.

6.14 GitHub study group

Jason Potterf Reflector: CPWG_github_study@esta.org. Progress report.

No action at this meeting. Removed from the agenda due to lack of time.

6.15 Task group leader coordination

Scott Blair is the official scheduling liaison between the CPWG task groups and Frances Thompson.

No action at this meeting.

BSR E1.20: Scott Blair and Wayne Howell

BSR E1.37-2: Simon Newton

BSR E1.37-4: Peter Willis

BSR E1.37-5: Scott Blair and Simon Newton

BSR E1.37-6: Simon Newton

BSR E1.59: Dan Murfin and Maya Nigrosh

E1.37-x: Video Walls Scott Blair

E1.61 NAEP: Jason Potterf and Kevin Loewen

E1.68: Javid Butler and Wayne Howell

IPv6 Task Group: Jason Potterf

Next Gen Study Group: Jason Potterf and Maya Nigrosh

Plugfest Marketing Task Group: Michael Lay

NAMM Education Task Group: Milton Davis

Next Gen Transport study group: Maya Nigrosh and Jason Potterf

Next Gen luminaire library study group: Sam Kearney and Dan Murfin.

Protocol Security study group: Kevin Loewen and Paul Beasley

GitHub study group: Jason Potterf

6.16 IEEE report on single-pair Ethernet

Jason Potterf to report on IEEE 802.3cg progress.

No action at this meeting. Removed from the agenda due to lack of time.

7 New business

7.1 Action due

These items need action now or needed action last year and are now past-due.

Michael Lay asked if there would be any objection to voting on all four standards in a single motion. (Agenda items 7.1.1 through 7.1.4) There were no objections.

Bill Ellis moved to reaffirm all four standards. The motion was seconded, and will be decided by letter ballot after the public reviews.

7.1.1 ANSI E1.3 – 2001 (R2016), Entertainment Technology - Lighting Control Systems - 0 to 10V Analog Control Specification & Application Guide For ANSI E1.3 – 2004 Lighting Control Systems 0 to 10V Analog Control Specifications.

Revision, reaffirmation or withdrawal by 17 February 2021

7.1.2 ANSI E1.27-1 – 2006 (R2016), Entertainment Technology - Standard for Portable Control Cables for Use with USITT DMX512/1990 and E1.11 (DMX512-A) Products.

Revision, reaffirmation or withdrawal by 8 April 2021

7.1.3 ANSI E1.30-1 – 2010 (R2016), EPI 23, Device Identification Subdevice.

Revision, reaffirmation or withdrawal by 17 February 2021

7.1.4 ANSI E1.30-4 – 2010 (R2015), EPI 26, Device Description Language (DDL) Extensions for DMX512 and E1.31 Devices.

Revision, reaffirmation, or withdrawal by 25 September 2020

7.2 Other new business

Scott Blair asked about the schedule of the next meeting, if another will occur between now and the April meeting. Since this meeting is unable to complete the agenda in the available time, the consensus was that an interim meeting was likely if there are any new documents on which to take action.

7.3 ANSI audit results

Richard Nix to report.

No action at this meeting. Removed from the agenda due to lack of time.

7.4 CPWG Webex Roundtables in 2021

No action at this meeting. Removed from the agenda due to lack of time.

8 Other business and announcements

8.1 National Electrical Code (NEC) update

Jason Potterf to report on code panel 18 activity, Mitch Hetter to report on code panel 15 activity.

No action at this meeting. Removed from the agenda due to lack of time.

8.2 Illuminating Engineering Society of North America (IESNA) update

Bill Ellis & Mitch Hetter to report on IESNA activity

No action at this meeting. Removed from the agenda due to lack of time.

8.3 Plugfests

8.3.1 Europe

No news or action at this meeting. Removed from the agenda due to lack of time.

8.3.2 USA

No news or action at this meeting. Removed from the agenda due to lack of time.

8.4 Above & Beyond Awards

Information on the Above & Beyond Awards is at http://tsp.esta.org/tsp/news/award_recipients.html.

Milton Davis displayed the award and presented it virtually to Wayne Howell. Davis read aloud the nomination text explaining what Howell has been a long-time consistent contributor to the CPWG and was being lauded for being a task group leader on the E1.20 Remote Device Management project. Davis noted that Howell has demonstrated remarkable leadership in guiding the task group and has exhibited an admirable determination to make certain that every voice is heard.

There was applause.

8.5 NAMM report

No news or action at this meeting. Removed from the agenda due to lack of time.

9 Schedule for future meetings

The meeting schedule may be found at <http://www.esta.org/ESTA/meetings.php>.

10 Adjournment

Milton Davis asked for a motion to adjourn. Shawn Silverman made a motion to adjourn. It was seconded. Hearing no objections and the time available for the meeting being exhausted, Milton Davis declared the meeting adjourned at 13:00.

Control Protocols Working Group members and contact information as of 12 February 2021

Delegate	Representing	Voting status	Int. cat.
Cameron Affleck	Cameron Affleck	O	U
Christian Allabauer	Christian Allabauer	O	G
Matthew Ardine	I.A.T.S.E. Local 728	A	U
Benjamin Eagen Arrigo	Benjamin Eagen Arrigo	O	U
Tim Bachman	Altman Lighting	O	MP
Nick Ballhorn-Wagner	Electronic Theatre Controls, Inc.	O	MP
Robert Barbagallo	Solotech Inc.	O	U
Tom Barthel-Steer	Electronic Theatre Controls, Inc	O	MP
Paul Beasley	Walt Disney Company	P	U
Robert Bell	Acuity Brands Inc.	A	MP
Marcus Bengtsson	disguise	P	MP
Justin Bennett	University of the Incarnate Word	O	U
Rene Berhorst	MA Lighting	P	MP
Andrew Berry	X-Laser	O	MP
Scott M. Blair	Megapixel	P	CP
Eric Bloom	Westview Productions	P	DR
Jim Bogdanowicz	Kino Flo, Inc.	A	MP
Pete Borchetta	Altman Lighting	P	MP
Brent Boulnois	Candela Controls, Inc.	A	DR
Justyn Butler	JBOTS	O	CP
John David (Javid) Butler	HDR Consulting LLC	P	DE
Ian Campbell	Doug Fleenor Design, Inc.	A	MP
Jean-Francois Canuel	A.C. Lighting Ltd.	O	CP

Control Protocols Working Group members and contact information as of 12 February 2021

Delegate	Representing	Voting status	Int. cat.
Steve Carlson	High Speed Design, Inc.	O	MP
Yongzhi Chen	Guangzhou Haoyang Electronic Co., Ltd.	O	CP
Anthony Chiappone	Chauvet Lighting	O	MP
Martin Chisnall	Martin Chisnall	O	U
Jon Chuchla	Audio Visual Systems, Inc.	O	G
Gareth Conner	Creative Conners, Inc.	O	MP
Fraser Connolly	Obsidian Controls	O	DE
Chris Conti	PRG	O	DR
Milton Davis	Doug Fleenor Design, Inc.	P	MP
Jeremy Day	Lumenpulse Group	O	MP
Steve Denim	Electronic Theatre Controls, Inc.	O	MP
Larry Dew	W.A. Benjamin Electric Co.	O	DE
Matthew Dews	Electronic Theatre Controls, Inc	O	MP
Matt Didon	ON LX Limited	P	CP
Rich Dionne	Purdue University	O	DE
Gary Douglas	Phospec Industries, Inc.	P	MP
Tucker Downs	Tucker Downs	O	G
Hamish Dumbreck	James Embedded Systems Engineering	O	MP
James Eade	ABTT	O	G
Bill Ellis	Candela Controls, Inc.	P	DR
Paul K. Ericson	Stantec	O	DE
Trevor Forrest	Helvar Lighting Control	O	MP
Mike Garl	Mike Garl Consulting LLC	exf	

Control Protocols Working Group members and contact information as of 12 February 2021

Delegate	Representing	Voting status	Int. cat.
Stijn Geysen	Luminex Lighting Control Equipment	P	MP
Robert Goddard	Goddard Design Co.	P	MP
Nicolas Goerg	Rosco Laboratories	O	CP
Sean Goossen	LiteGear, Inc.	O	MP
Jerry Gorrell	Theatre Safety Programs	O	G
Erin Grabe	ESTA	exf	G
Matt Halberstadt	Electronic Theatre Controls, Inc	O	MP
Sean Harding	Port Lighting Systems	O	G
Nick Harper	Nick Harper	O	G
Robert Haycock	UC Berkeley	O	U
Mitch Hefter	USITT	P	U
Julian Hoare	Tait Towers Manufacturing LLC	A	MP
Jon Hole	Signify	P	MP
Maurits van der Hoorn	Acuity Brands Inc.	A	MP
Wayne David Howell	Artistic Licence Holdings	P	DE
John Huntington	I.A.T.S.E. Local 1	A	U
Leroy "Tripp" Oliver, III	Mainstage Theatrical Supply, Inc.	P	DR
Eric Johnson	Eric Johnson	O	G
Rob Johnston	Interactive Technologies, Inc.	O	MP
John Valus Jr.	Lex TM3	P	CP
David Kane	I.A.T.S.E. Local 728	A	U
Michael Karlsson	LumenRadio AB	P	MP
Sam Kearney	Electronic Theatre Controls, Inc.	P	MP

Control Protocols Working Group members and contact information as of 12 February 2021

Delegate	Representing	Voting status	Int. cat.
Jonathan Kemble	Jonathan Kemble	I	G
Chris Kennedy	Chauvet Lighting	O	MP
Bill Kirby	Crescit Software, Inc.	O	G
Paul Kleissler	City Theatrical, Inc.	P	MP
Lucas Korytkowski	Insight Lighting	O	MP
Edwin S. Kramer	I.A.T.S.E. Local 1	P	U
Christian Krueger	Blizzard Lighting LLC	O	MP
Ulrich Kunkel	E3 Engineering & Education for Entertainment GmbH	P	U
Jason Kyle	JPK Systems Ltd.	O	MP
Hans Lau	I.A.T.S.E. Local 728	P	U
Michael Lay	Candela Controls, Inc	A	DR
Hans Leiter	Electronic Theatre Controls, Inc.	O	MP
Jon Lenard	Applied Electronics	O	MP
Michael Lichter	Electronic Theatre Controls, Inc.	A	MP
Kevin Loewen	Acuity Brands Inc.	P	MP
Jim Love	Tait Towers Manufacturing LLC	P	MP
Rob Love	Insight Lighting	O	MP
Vangelis Manolis	AtlaBase Ltd.	O	CP
Kevin Matz	Company 235, LLC	O	U
David McCulloch	David McCulloch	O	U
Bill McIntyre	Show Distribution Group, Inc.	P	CP
John Mehlretter	Lehigh Electric Products Co.	O	MP
Daniel Murfin	Royal National Theatre	P	U

Control Protocols Working Group members and contact information as of 12 February 2021

Delegate	Representing	Voting status	Int. cat.
John Musarra	John Musarra	O	U
Simon Newton	Open Lighting Project	P	G
Maya Nigrosh	Sonos	P	MP
Richard J. Nix	ESTA	exf	G
Jim Ohrberg	Candela Controls, Inc.	A	DR
Jaxon Patterson	Insight Lighting	O	MP
Soren Sterdorff Peglau	Brother, Brother and Sons	O	MP
Jason Potterf	Cisco	P	MP
Jeremy Powell	Vectorworks, Inc	O	CP
Mark Primrose	Kino Flo, Inc.	P	MP
Gary Pritchard	LSC Lighting Systems PTY Ltd	O	MP
Charles Reese	Production Resource Group	O	DR
Alan M. Rowe	I.A.T.S.E. Local 728	A	U
Karl G. Ruling	ESTA	exf	G
Yngve Sandboe	Sand Network Systems, Inc.	O	MP
Nicolai Gubi Schmidt	Nicolai Gubi Schmidt	O	U
Ford Sellers	Chauvet Lighting	O	MP
Shawn Silverman	Lighting Infusion LLC	P	DE
Bart Swinnen	Luminex Lighting Control Equipment	O	MP
Steve Terry	Electronic Theatre Controls, Inc.	A	MP
Richard Thompson	Electronic Theatre Controls, Inc	O	MP
Christopher B. Tilton	About the Stage, LLC	O	DE
Robert Timmerman	Signify	O	MP

Control Protocols Working Group members and contact information as of 12 February 2021

Delegate	Representing	Voting status	Int. cat.
Tracy Underhill	Triple C Lighting & Controls	O	G
Carlo Venturati	Clay Paky S.P.A.	O	MP
Will Wagner	Carallon Ltd.	O	MP
Colin Waters	TMB	O	DR
Ralph Weber	ENDL Texas	O	G
Peter Willis	Howard Eaton Lighting Ltd.	P	CP
Loren Wilton	Showman Systems	O	CP
David Yellin	Sumolight GmbH	O	MP
Jeong Sik Yoo	Ghost LX	O	DE

Voting Status key: P = Principal voter, A = Alternate voter, I = Individual voter; O = Observer (non-voter); exf = ex officio

Interest Category key: MP = Mass-market producer, CP = Custom-market producer, DR= Dealer or rental company, U = User, G = General interest, DE = Designer